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BUREAU OF FISHERIES

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The Commissioner of Fisheries,
Washington, D. C.

Following is the report of general operations for the fishing season of 1919, as warden in charge of the Bristol Bay region, Western Alaska, which report is respectfully submitted.

Shirley Baker
Warden, Alaska Service.

Narrative

In company with assistant, Warden Lemuel G. Wingard, I left Seattle, April 25, 1919, and proceeded to San Francisco, from which port we sailed on May 6 for Bering Sea, on the Alaska Packers' Steamer Nushagak. Upon arriving at Unimak Pass we found Bering Sea free of ice, and on May 20 our steamer anchored in Nushagak Bay off Clark's cannery, belonging to the Alaska Packers. The voyage was without unusual incident.

The "Flu" Plague

Upon my arrival at Nushagak Bay, I found the "flu" had made its appearance in the native villages, and for a time threatened the utter extinction of the entire Eskimo population of all that section of the Bering Sea region. In fact, the entire Bristol Bay region was in a demoralized condition. From the very outset it was apparent that the natives had no power of resistance to fit them to cope with this malignant type of pneumonia. The Government hospital was crowd-

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ed with victims, and the whole hospital staff was sick with the disease. The dead were lying unburied in the barabaras, and in many instances half-starved children were found in homes with the badly decomposed bodies of their elders about them. Strange to say, these children died only in rare instances. It was the young people and adults that felt the full force of the plague, there appearing to be a complete breakdown of their physical resistance whenever struck by "flu" infection.

For the first three weeks after my arrival--there being nothing of pressing importance in the Bureau's work to be done--I put in my time in assisting off and on at the Government hospital and Kanakanak Village, but principally in burying the dead. With a little assistance, the U. S. Deputy Marshal and I interred almost the entire adult population of the Eskimo village of Kanakanak, and also organized the burying party that interred the dead at Dillingham. Many of the bodies were far gone in decomposition; ravenous dogs had been feeding upon them, and the conditions were too harrowing to narrate in this report in detail.

Operation of the U. S. R. Cutter Relief Service During "Flu" Plague.

To the credit of our Government, it was very prompt and very sincere in its intention to give immediate and adequate relief to these most unfortunate people. One of the measures was the dispatch of revenue cutters with physicians, nurses, medical supplies, etc. I am sorry to have to inform you that this relief work was a failure in all the region where its operations--or rather lack of operations--fell under my observation. Take the Revenue Cutter Unalga as a typical example of this lapse of duty. This vessel would anchor off near a stricken village; a landing party, comprising the nurses and physicians, would go ashore, together likely with several of the officers. Little or no attention was given to the sick and dying Eskimos, but, until the time of going aboard again, a desperate hunt was kept up for souvenirs. In the course of such hunts, Eskimo homes were invaded--in some instances rifled--and acts bordering on vandalism committed, to countenance or condone which would

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be on a parity with the excusing of the callous disregard of the "shore parties" to want of the sick and dying Eskimos to whom they had been sent to minister but who received no attention.

At Koggiung, Mr. J. C. Bell, Superintendent of the Alaska Packers' Association, congregated in the Government school-house all the "flu" victims, and there detailed the company physician and nurses to care for the stricken people. The cutter sent one of these landing parties ashore at this point. Nurses and physicians visited the school-house and were expected by Mr. Bell to take immediate charge of the situation and relieve him of the great responsibility. But the physicians, and particularly the nurses, remaining there only a short while, did not do any relief work worthy of mention, declaring that the natives were "too dirty," and after looking around the village for souvenirs and furs, went aboard the cutter. At Nushagak and at Dillingham there was a similar distressing failure on the part of those on board the cutter whose duty it was to give treatment to the "flu" victims. At this place the nurses went ashore and reported for duty at the Government hospital. They were not there an hour, however, before they invited the two nurses at the Government hospital to a dance on board the cutter that evening. These two nurses, Miss Mary Conley and Miss Rhoda Ray, both having been employed by the Bureau of Education at this place for the past two years, had been working practically night and day for weeks on end,--doing all the janitor's work, the cooking for the entire hospital, all the nursing and caring for a number of children and babies whose parents were either dead or dying,--getting up, in fact, at 6 a.m. and continuing steadily on duty until 11 p.m., and getting up thereafter during the night to attend to babies and sick persons urgently demanding attention. They related the situation to the party from the cutter and declined the invitation. The nurses from the cutter, who should have come ashore to help, went back the following day to dance. Remaining aboard the cutter from that afternoon until noon of the following day, they reported again at the hospital and were then told by the two nurses and physician in charge there that their services were not required. The nurses at the hospital

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felt, and so told the Unalga party, that there would be that many more to cook for and wait on and they did not care to be bothered with them in the crisis existing.

In justice to the physician who was sent to the Government hospital with this party--he did his work well and seemed to have a high moral sense of obligation. Upon his arrival at the hospital, Doctor French, who was in charge, turned the institution over to his management. For some ten or twelve days he remained in charge and showed efficiency and devotion to duty.

The vessels with the medical relief parties were sent to Alaska at a great expense to the Government and to the Red Cross, in order to give aid to those most unfortunate Eskimos in the astounding calamity that had swept over them. The physicians and nurses were paid a handsome wage and given their expenses. I was informed by one of the physicians in the relief party that expensive Red Cross supplies were loaded on the vessel to give every means for the relief of the terrible conditions of these Eskimo villages marked for destruction, and the abject failure of the expedition to accomplish results is the saddest repudiation of a benevolent intention that I have ever heard of or seen.

In addition to Misses Conley and Ray, who did strikingly effective service and exhibited a devotion to duty of a very high order, and which would have won them medals if performed by them in the service of their country on the field of battle, Miss Edna Morris and Miss Katherine Miller, sent to Bristol Bay by the Bureau of Education and the Territorial Government, also rendered service worthy of special mention and high praise.

I am sorry to report that the fishermen, all of whom were foreigners, refused to give help which they should have proffered with the most spontaneous generosity. They even refused to bury the dead unless they were paid and well paid, and they showed a callous lack of appreciation of the heart-rending fate of these unhappy people.

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Many of the canneries showed a more noble strain. Superintendents of the various canneries took a sympathetic interest in the plight of the "flu"-stricken natives, and with a benevolence, that was as free as it was magnanimous, extended material aid and assistance to the limit of their capabilities.

As to the other two vessels--the Vicksburg and the Marblehead--so far as I could learn, their only duty was the bringing to Alaska of the Red Cross supplies, physicians and nurses. They did this satisfactorily and then reported for other duty.

Organizing the Season's Work

On June 10, the organization of the Bureau's work for the season was taken up.

Wood River Monuments

Monuments prohibiting commercial fishing in Wood River were set on each side of that stream at the point of confluence with the Nushagak, June 14.

Wood River Salmon Census

The equipping of the Wood River counting expedition for field work having been completed, the trip was made to Lake Aleknagik June 17. The rack was erected across the lake run-out and the count began June 25. A special report to the Bureau, under separate cover, narrates the operations and results accomplished by this expedition.

Discontinuance of the Counting Station

I note that an attempt is being made to discredit the potential value of the annual count of red salmon entering the Aleknagik chain of lakes to spawn, the end in view being to force a discontinuance of the counting station.

By actual accomplishment, this count, I feel, has proven its indispensable utility and serviceableness, and its abandonment at this critical juncture of the fishing industry in Alaska would be, to my mind, a serious mistake.

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During the past three seasons I have been in close touch with the counting operations. In fact, throughout the entire five seasons that I have been stationed in the Bering Sea region, I have been in such direct contact with all the counting station activities, that I feel qualified to give an authoritative statement of fact in the matter of results accomplished by the Aleknagik counting expedition.

The only true method by which to establish a finding of fact in a case of this kind is through the summing up of results accomplished, and it is just here that the Wood River census stands out in splendid perspective. Year by year, since its inception, the station has established the ratio of spawning escapement into the waters of the Aleknagik group, and in addition it has shown the fluctuations in volume of the seasonal runs of red salmon in Nushagak Bay waters-- not to mention other data collected, such, for illustration, as the ratio of salmon bearing gillnet injuries, the percentage of humpbacks, dogs, king salmon, etc.

I do not think, because there are other lakes up Nushagak River, in which red salmon are supposed to spawn and which are not counted, that for this reason the Wood River count is no criterion of the fluctuations in volume of the general run of salmon entering these waters. It is a matter of common knowledge everywhere in the Nushagak Bay region that the Aleknagik chain of lakes is the great natural rendezvous of the spawning red salmon entering Nushagak Bay. White fishermen will tell you that; so will the natives, who, as their ancestors before them, have been roaming that region time out of mind. But even the possible fact that there may be a few red salmon spawning in other lakes at the head of Igushik and Nushagak Rivers, in no way alters the absolute, essential necessity of continuing the Wood River census, nor does it in any way vitiate the findings or the fundamental value of the data yearly accumulated by the counting station.

Everyone acquainted with the salmon industry knows that salmon spawned in a certain lake return to that lake when it comes their time to spawn. At least, this is the basic law governing the life activities of the fish, it being universally known and accepted everywhere that Pacific Coast salmon are taken. The

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few salmon found to be individual exceptions to this rule form the time-honored and time-recognized exception that proves the rule. This fact, being accredited and authorized, it goes without saying that the Wood River count forms a true seasonal barometer of the volume of the red salmon running into the waters of the Nushagak Bay to spawn. Taken year by year, it shows the fluctuations of the run, how the run one season differentiates itself from that of another, forms a source of information as to the causes of such incidents, and before all and above all demonstrates whether or not the intensive fishing operations on the ocean banks off Nushagak Bay, coupled with the fishing inside Nushagak Bay, is depleting the run. This last fact is of enormous importance--for in time to come, in my opinion, this count will be found to have overshadowed every other protective measure carried forward anywhere in Alaska for the preservation of this great food fish. The Wood River count is an actual, bona fide measurement of the depletion of the red salmon run entering Nushagak Bay, and this is the paramount reason that it should be continued.

There is no plausible argument, to my mind, which can be made for the elimination of the count, and the motives of the cannerymen opposing it can be prompted only by mercenary and selfish interests of gain.

I believe the count should be continued at least another season. It is considered by packers and interested agencies that a crisis exists at this time in the Alaska salmon industry, due to weak runs and poor packs in the season of last summer. Now, if it is true that Alaska salmon runs are facing a drain so drastic that they are threatened with extinction, it is manifestly illogical to voluntarily throw away the yard stick which is year by year measuring this depletion. No sea captain ever threw away his compass in the time of a storm. This count throws a flood of light on the whole question of salmon depletion in at least all Bering Sea waters, for Nushagak Bay can legitimately be taken as a criterion for salmon runs in other waters of that vast region.

Patrol Service

During the fishing season, patrol service

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was maintained in all streams where commercial fishing is prohibited as regularly as was possible to obtain a boat.

Canneries and salteries were also visited regularly to make sure that there were no infractions of fishing regulations.

Zero Salmon Run

The big overshadowing feature of the Bristol Bay fishing season the past summer was the lack of fish. Never in the history of the fish canning industry of Bristol Bay, or in the memory of the oldest Eskimo, has there been such a light run of salmon. It is needless to say that the Bering Sea salmon fleet sailed away at the end of the fishing season with the smallest pack it has ever taken southward,-- a pack in some instances hardly worth the name.

At first it was supposed by the cannery superintendents and the fishermen that the fish runs were merely hanging back, as has frequently been the case in the past with runs in those waters, but when days reached weeks without any speeding up of schools, or increase in volume of run, the anxiety and apprehension already excited gave way to general pessimism. The season closed without a single cannery getting its pack, and with the superintendents wondering what next year's fishing season might develop.

The only feasible explanation of the zero run of this season is long-continued and intensive over-fishing.

Catches and Prosperity of Fishermen

After perusing the foregoing paragraph, it is needless to state that the fishing trips northward of the Portland, Seattle, and San Francisco fishermen, found in Bristol Bay waters this season, were a failure from a financial standpoint. The men made practically nothing and their misfortune thus stands out in sharp contrast laid alongside of their good luck of last year, at which time the financial gain of the

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Bristol Bay fisherman was the largest in the history of the fishing annals of Bering Sea.

Absence of the Eskimo Fisherman

Due to the ravages of the "flu", the Eskimo--always a picturesque and romantic figure in Bering Sea packing operations--was missing from the fishing banks in the bay waters as well as set-net fishing in the river. His absence was sincerely regretted by the old-timers, as it is likely that never again will he be a factor in the fishing and canning operations of that region. Child-like in his simplicity, honest to the core, often imposed upon and standing such aggression with noble fortitude, his disappearance from the fishing grounds of Bering Sea will always be regretted by those who knew him best.

Weather Conditions and Ice Pack

From a meteorological standpoint, the season was fine, there being only two storms worth the name.

The past winter in the Bering Sea region, having been comparatively mild, the volume of the ice in the sea, and the ice blanket on lakes and rivers in that section was much less than normal, reversing the condition of the season of 1918, when the ice pack in sea and bays, and the ice covering lakes and rivers was excessive.

Loss and Destruction of Vessels

The sailing Schooner Premier, belonging to the Alaska Packers' Association, with a cargo aboard of cannery equipment and building material, was wrecked near Unimak Pass during the latter part of May. While no lives were lost, the schooner was a total loss, including her cargo.

Casualties

Due to good weather, and also to inaction produced by light runs of fish, there were no deaths from accidents by drowning in Bristol Bay operations for the season of 1919. This is an unusual record, as ordinarily there are six or eight deaths by accident in this region.

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Infraction of Regulations

There was no destruction or waste of fish at canneries, or other infractions of canning regulations.

A special report, already forwarded to the Washington office, covers the arrest, conviction, and punishment of fishermen breaking the regulations governing commercial fishing in the Nushagak region.

Salmon Runs

This feature has been so ably handled by Dr. Charles H. Gilbert, Special Assistant, and Mr. Henry O'Malley, Field Assistant, who, as elsewhere stated in this report, covered the Bristol Bay region this season, and I feel it is superfluous for me to mention the runs in detail. However, a bare statement of facts may not be amiss.

All salmon runs in the Bristol Bay region this season were abnormally light, spasmodic, and unreliable.

King Salmon

On June 2, the first king salmon was caught, this being several days later than in preceding years. While the run of this species was at all times light, it continued running with the other salmon until the end of the season.

Red Salmon

The red salmon began appearing in small numbers June 7, but it was fifteen days later before schools of any size showed in the bay waters. As stated under the heading, Zero Salmon Run, in this report, the lack of the sockeye to materialize a run caused the biggest failure of pack in the history of canning operations in Bristol Bay.

Dogs and Humpbacks

The volume of run of these two species was also the lightest recorded.

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Silvers

The run of silver salmon at the end of the season was brief but strong. With them came stringing into the bays and rivers belated reds and kings, which was considered unusual by the fishermen.

In time of runs all species kept close to seasonal schedules.

National Cannery Association

Three representatives of this association were in the Bristol Bay region this season, it being the first time such investigations have been undertaken among the canneries in that district. One of the association inspectors covered the canneries in the Naknek and Kvichak River regions; another the Egagik and Ugashik canneries, and a third the canneries of the Nushagak Bay country.

In some instances superintendents of canneries were disposed to criticise their work, but I believe the policies of the association, as I understand them, will prove one of the constructive elements in bringing progressive methods and ideas into the foreground in handling problems facing the canning industry..

The inspectors appeared to do their work very creditably and showed initiative and adaptability. While following my own work, I frequently came across Mr. Pugsley, the inspector stationed on Nushagak River, and I was impressed with his capability and efficiency.

It is understood that it is the intention of the association next season to have one inspector stationed at each cannery, instead of one for a certain number of canneries or a district, as was the practice this past season.

Illiamna Lake

In my trip to the outside, I had an excellent opportunity for observing conditions in the Illiamna Lake region, in respect to the depleted salmon runs. Traveling the entire length of the lake, and stopping at points on both sides, all first-hand information, as

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well as hearsay, showed that this season's salmon runs in the Illiamna and Clark Lake regions resulted in a complete break-down in volume. In fact, the fish were so few in numbers that native reindeer herders, as well as the Kenai Indians remaining in the villages at the head of the lake, had as yet dried only a few hundred fish when I passed through the country, and the salmon runs were considered over at that time. The camp of reindeer herdsman, located on what has for years and years proved a fine fishing slough at the base of Big Mountain, had captured only 100 or 125 fish when I visited them. They told me that they had been fishing there for several days. The Eskimo village, Kaskanak, at the head of the Kvichak River, was deserted, and the Kenai village of Newhalen on the east side of the lake was deserted by all, with the exception of two families, and they had put up for their own use about 300 salmon.

The tyone and the trader of Illiamna told me the condition was serious, as the natives did not have a sufficient fish supply put away to carry them through the winter. Side trips that I made around the headwaters of the lake and going up the Illiamna River for several miles, verified their statements.

Canneries in Operation in Bristol Bay

COMPANY	ALASKA ADDRESS	NO. CANNERIES
Alaska Packers' Assn.....	Koggiung, (Kvichak River)	2
Libby, McNeil & Libby.....	Koggiung, (Kvichak River)	3
Bristol Bay Packing Co.....	Koggiung, (Kvichak River)	1
Alaska Packers' Assn.....	Naknek, (Naknek River)	3
Alaska-Portland Packer's Assn..	Naknek, (Naknek River)	1
Red Salmon Packing Co.....	Naknek, (Naknek River)	1

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COMPANY	ALASKA ADDRESS	NO. CAN- NERIES
Naknek Packing Co.....	Naknek, (Naknek River)	1
Northwestern Fisheries Co.....	Naknek, (Naknek River)	1
Alaska Packers' Assn.....	Dillingham, (Nushagak Bay)	2
Alaska-Portland Packers' Assn..	Dillingham, (Nushagak Bay)	1
Alaska Salmon Co.....	Dillingham, (Wood River)	1
Northwestern Fisheries Co.....	Nushagak, (Nushagak Bay)	1
Libby, McNeil & Libby.....	Nushagak, (Nushagak Bay)	1
Columbia River Packers' Assn...	Nushagak, (Nushagak Bay)	1
Libby, McNeil & Libby.....	Egagik, (Egagik River)	1
Alaska Packers' Assn.....	Egagik, (Egagik River)	1
Alaska Packers' Assn.....	Ugashik, (Ugashik River)	1
Red Salmon Packing Co.....	Ugashik, (Ugashik River)	1
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The Northwestern Fisheries' new modern cannery, located near the mouth of the Naknek River, which was completed last fall, operated three sanitary lines this season. Its pack, so I was informed by the superintendent, was 36,000 cases, which was by far the largest pack per line of any cannery in Bristol Bay.

The new cannery of the Alaska-Portland Packers' Association, under construction on Naknek River, was completed in time for canning this season. Two lines were installed in this cannery and its initial pack was 11,000 cases.

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The Alaska Packers' Association did not operate their new cannery at Ugashik this year, as the building undergoing construction were badly delayed in the early spring on account of the wreck of the Schooner Premier on her voyage from San Francisco to Ugashik. The Premier's cargo consisted of building material and cannery equipment for this cannery.

Salting Stations

Salting stations were distributed in Bristol Bay waters as follows:

COMPANY	ALASKA ADDRESS	NO. STATIONS
Alaska Packers' Assn....	Dillingham, (Igushik River)	1
Libby, McNeil & Libby...	Nushagak, (Igushik River)	1
P. H. Nelson.....	Nushagak, (Igushik River)	1
Alaska Salmon Company...	Koggiung, (Kvichak River)	1
P. H. Nelson.....	Koggiung, (Kvichak River)	1
Pete Iverson.....	Koggiung, (Kvichak River)	1
T O T A L		6

Pete Nelson salted only about fifty barrels at the Kvichak Saltery, when he suddenly became disgusted and decided to move his force and gear to his salting station on Nushagak Bay, where he put up salt salmon with double force the rest of the season.

While Libby, McNeil & Libby did not salt fish at their Igushik saltery, they kept the regular crew there and transferred all fish caught in that locality in lighters to their cannery at Nushagak.

Set or Stake Nets

These show a big numerical depletion, caused solely by the ravages of the "flu" among the Eskimos. In the Bristol Bay region last season 732 stake nets

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were enumerated, which did not include Ugashik River. This year shows for the same waters, and including Ugashik River, but 497.

Following is the number of stake nets in operation in Bristol Bay waters during the past summer:

LOCATION	<u>No. of Nets</u>	
	<u>1919</u>	<u>1918</u> (Last season)
Wood River (Including Wood River Flats).....	25	59
Nushagak River proper.....	13	41
Nushagak Bay waters.....	114	197
Igushik River.....	29	46
Snake River.....	11	31
Kvichak Bay waters, (Including Branch River).....	91	174
Naknek River.....	73	81
Egagik.....	59	103
Ugashik.....	82	Not given
TOTAL: : :	497	732

Traps

There were only seven traps operated in the Bristol Bay region. Four of these traps were operated by the Alaska Packers' Association and the other three by the Alaska-Portland Packers' Association. I was told by the superintendents that the traps did not catch enough fish to pay for their installation.

Recommendations

There are several modes of procedure, any one of which will work in the direction of building up the depleted salmon runs of Alaska. The help any or all of them will give, however, will not be noticed unless there is a sweeping curtailment in the amount of fishing done. The only true way to build up these runs and regain what is lost is to adopt a reverse process; or, in other words, as there has been overfishing for several

years past, there should now be a season of under-fishing for a term of years. When a horse or a human being is overworked, we cure the evil with rest. The Alaska salmon runs have been overworked and a similar treatment will have a like result.

It is idle to expect a recuperation of these vanishing Alaska salmon runs through any one of such methods as the following, suggested by some of the cannerymen and the Fishermen's Union representative at the hearing held in Seattle, November 20: The elimination of traps in certain waters; the shortening of the fishing season by arbitrarily lopping off five or more days at the beginning and end of the fishing season--and any other similar weak and temporizing methods.

It should be the ideal and the endeavor of the owner of every cannery operating in Alaska to keep the salmon run--the source of the wealth of his cannery--up to its primitive level in the matter of volume.

Following are a few suggestions that I believe would be of some benefit to the Bristol Bay salmon runs, and which would allow a larger spawning escapement:

(a) That all Bristol Bay rivers be closed to commercial fishing at all points above their mouths; and that the mouths of these streams be determined by the Secretary of Commerce, in his discretion, and that suitable markers be erected.

(b) That the weekly close season of 36 hours--during which time no fishing is permitted--be enacted. This method of regulation, in my opinion, would allow a larger spawning escapement, and to a certain extent would enable the runs to hold their own a little longer against the enormous demand made upon them by intensive fishing operations. I do not believe that the closing of the rivers to commercial fishing, without the weekly close season, would be of any material benefit. Even a 24-hour weekly close season would provide a large spawning escape in this district.

(c) That the natural enemies of both the mature

salmon and also the fry be destroyed. This work should not be spasmodic, but should be systematically carried forward year by year.

Trout Seine

The trout seine, wisely provided by the Bureau this season for the destruction of the trout preying upon the salmon fry and the eggs of the spawning salmon in Lake Aleknagik, was found to have too deep a bag for the shallow places near the lake run-out. The swiftness of the waters of the lake run-out made it a physical hardship for the small force of men operating the Wood River count to handle the seine. By cutting the seine down it can be used successfully and will prove a fine protective measure in ridding the waters of trout. The net man of the Alaska Packers' Association offered to cut the seine down for \$35. I recommend that this be done, and that a crew of men be sent to the lake a few days each season to seine these pests out and destroy them.

Mr. Noyes, who had charge of the Wood River count this season, made several attempts to use the seine, but claimed that he could not handle the work with the small force. On my first trip to the counting station, the seine was taken out under my direction and at the first haul we captured 74 trout, demonstrating the feasibility of ridding the lake waters of thousands of trout, providing steps are taken to handle the situation. At that time, however, there were four extra men in the crew sent to help install the rack.

Warden Lemuel G. Wingard

During the season, I was assisted by Warden Lemuel G. Wingard, who spent most of his time on the Kvichak and Naknek Rivers. Due to the fact that no boat was available for regular hire, Mr. Wingard, like myself, had to depend largely upon cannery launches for transportation in inspection work.

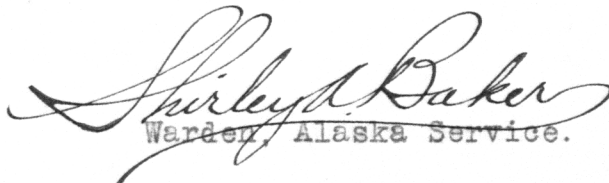
Together, we covered all the rivers and visited all the canneries and salteries in operation. From all accounts I had of Mr. Wingard he did good work and acquitted himself with credit to the Bureau.

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Following the fishing season and the departure of the cannerymen for the south, Mr. Wingard took up winter quarters at Koggiung, on the Kvichak River.

Dr. Chas. H. Gilbert and Mr. Henry O'Malley

The Bristol Bay season was made eventful in Bureau annals by the visit of Field Assistant Henry O'Malley and Dr. Charles H. Gilbert, Special Assistant. These gentlemen spent several weeks visiting the fishing grounds, canneries, salting stations, and the scene of the Wood River counting operations. Their trip to Bering Sea this season was especially timely and valuable in view of the depleted fish runs, giving what might be termed a specialized opportunity for observations at a very critical period in the history of the salmon packing industry.


Warden, Alaska Service.